

## SECURE E-MAIL SYSTEM

## ABSTRACT

A secure e-mail system (10) permitting a sender (12) to send a secure e-mail (14) to one or more receivers (16). The sender (12) employs a sending unit (18) having a software module (26) to compose the secure e-mail (14), to send data about it to a security server (24), to receive back from that security server (24) a messageKey (102e) for encrypting the secure e-mail (14), and for sending it conventionally to an e-mail server (22). The receivers (16) employ receiving units (20) also having software modules (26) to receive the secure e-mail (14), to send data about it to the security server (24), and to receive back from the security server (24) the messageKey (102e) for decrypting the secure e-mail (14). The security server (24) stores a user id (102a) and password (102b) for the sender (12) and the receivers (16); a messageId (104a), a sealSalt (104j), and the messageKey (104g) for the secure e-mail (14); and a receiver address (106b) in a database (100). Using the database (100) the security server (24) authenticates the sender (12) and the receiver (16) and validates the secure e-mail (14).

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